

THE FARMING WORLD.

VALUABLE TESTS.

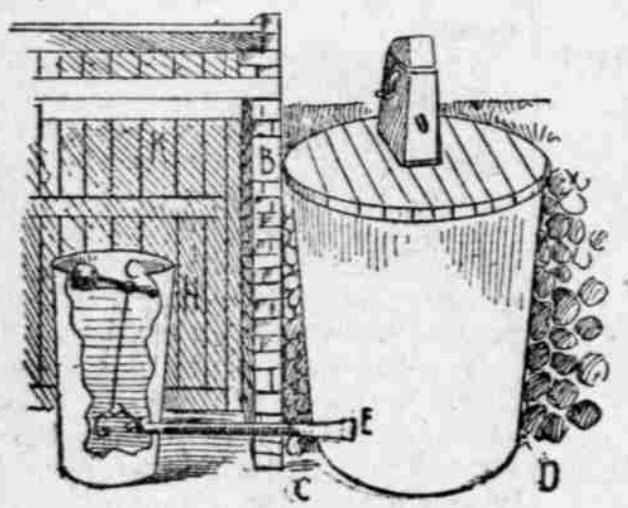
They Establish the True Value of Milk Fat in Cheese Making.

The relation of milk fat to yield of cheese and the consequent value of milk fat as a basis in paying for milk for cheesemaking, is the subject of Bulletin 110 of the New York experimental station at Geneva, N. Y. The contents are based upon the results secured by making analysis of the milk of 50 herds of cows, whose milk was taken to a cheese factory. The work covered an entire cheese making season of six months, from May to October. It is shown that in general the cheese yield is somewhat greater for a pound of fat in poor milk than in rich milk. For example, comparing two milks containing respectively three and four per cent. of fat, the former makes 2.85 pounds of cheese for each pound of milk fat, while the latter makes 0.25 pound less or 2.60 pounds of cheese for one pound of fat. It is shown that this difference in favor of cheese yield for fat in poor milk is only an apparent one, because this difference of 0.25 pound is made up of casein and water, which is really not as valuable as separator skimmed cheese, and which has a market value not to exceed two cents per pound. The constituents in 100 pounds of cheese made from the richer milk are worth more in the market than are the constituents from 100 pounds of cheese made from poorer milk. Milk rich in fat can be made to yield cheese of the same composition as milk poorer in fat in one of two ways: (1) by adding skim milk to, or (2) removing fat from, the richer milk; then the cheese yield for a pound of fat becomes the same. The difference in the cheese yield of milk fat in the case of poor milk over richer milk is a skim milk difference, and the extra yield of cheese for fat is the poorest kind of skim milk cheese. It is shown that paying for milk according to weight of milk furnished is exceedingly unfair to the producer of richer milk. It is shown that the cheese yield by itself does not constitute a fair basis for payment, because it gives poor milk an undue advantage. A critical comparison of all methods of paying for milk, suggested or in use, leads most emphatically to the conclusion that milk fat affords the fairest practical basis to use in paying for milk for cheese making. In conclusion it is pointed out that where the milk fat basis is used, there is no tendency to adulterate and defraud, while there is every encouragement to produce milk of better quality.

CISTERN AND TANK.

A Watering Arrangement That Has Worked Well for Years.

The brick and cement cistern A B C D is 14 feet in diameter, nearly 10 feet deep and holds about 360 barrels. A 1½-inch galvanized iron pipe E G, under stable floor and barn foundation, connects the bottom of the cistern with the 5-barrel wooden tank, about a foot above its bottom, as shown in the cut. The cistern as shown is very much reduced in size, as compared with the tank—to save room, in the cut. At D (letter indicated) is a rolling cut-off or faucet worked by the iron lever, D G. The small iron rod, G C, connects this lever with the lever of the float. To the right of C the lever of the float swings on a pivot fastened to the back side of the tank. To the left of C is the hollow copper globe about 5 inches in diameter, attached to the end of the lever. The action is as follows: When the water is used down in the tank the



CISTERN AND TANK.

copper globe falls with the receding water, pushes down G, the end of the faucet lever and opens the faucet, and the water from the cistern rushes into the tank and lifts the globe and gradually closes the faucet or cut-off. When the globe reaches the position shown in the cut it has shut the faucet tight, the tank is four inches from full and no more water can come in though the water level in the cistern may be five feet higher. The lid of the tank (not shown in cut) is closed in cold weather to prevent possible freezing. It is a very handy watering arrangement and has worked perfectly for nearly a quarter of a century, requiring no fixing of windmill or pump, for there is none—Ohio Farmer.

The Elaboration of Milk.

The cow elaborates the milk in the udder. There is blood coming in by the arteries at the top of the udder, which is composed of two glands lying lengthwise. Peculiar cells line the inside of the lactiferous ducts down which the milk trickles to the milk cisterns at the top of the teats. In each cell a formation grows that is almost like a tiny bud. That bud and by drops off and trickles down with the liquid milk. These buds are the globules of fat from which butter is made. They float in the milk.—Farmers' Review.

A Great Aid to Farmers.

A map of the farm, with each field numbered, and its size, quality of soil, etc., specified, will be a great aid in keeping track of the year's transactions. How few really know the expense of each grain crop the past year, what their cows, pigs, sheep and chickens have paid, etc.? This is an important matter and should not be neglected. It is a poor business man that does not know what he raises at a profit, and what at a loss.—Colman's Rural World.

CHICORY IN INDIANA.

A Montgomery County Farmer Tells of His Experience with It.

Last spring I bought five cents' worth of chicory seed and planted it in my garden. This fall I dug four bushels of chicory roots. As I had never seen any of the stuff before, I did not know what to do with it, but hearing it was a substitute for coffee, concluded to try an experiment. I washed the roots carefully, slicing them into thin strips, took them to a heading mill and put them into a box used for drying heading timber. In three days they were as dry as powder. I ran them through a little hand bone mill, which took me about 15 minutes, and found I had over a bushel of chicory meal. This meal my wife roasts or browns in the stove, the same as green coffee, but it takes a much shorter time.

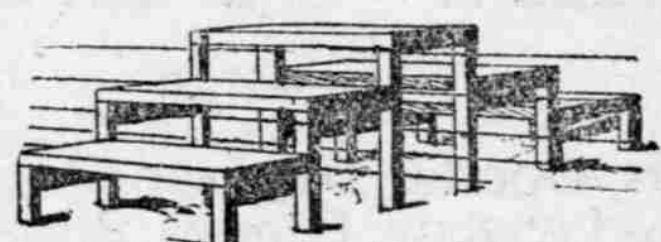
It is not a complete substitute for coffee, but if used with it cannot be detected from the pure article. We use two-thirds chicory and visitors declare they cannot tell it from pure coffee. I think it should be largely used, as coffee is not healthful, if medical authority is to be believed, but chicory never was known to have any bad effect unless used in excessive quantity, when it sometimes results in dysentery. Again coffee is expensive while chicory costs but very little. What I raised from five cents' worth of seed will last a large family five years. Let some of our wide-awake farmers in each community try it and it will not be long until a large coffee bill will be cut off from almost every family. The only trouble will be the drying of the roots, which must be done thoroughly, yet almost every town has some apparatus by which it can be done. It can be ground in an ordinary coffee mill.—Orange Judd Farmer.

ENTERING THE GARDEN.

Make It Easy for the Women and Children of the Family.

The garden gate is often neglected. Often it is a large gate to admit a double team with plow or wagon. More often it is a pair of bars that must be climbed over, let down or crowded through.

If the gate to your garden is like either of these described it would be a good idea to make a pair of steps as shown in the accompanying illustration. It can be easily made with a few inch boards and short bits of 2x4



BETTER THAN A POOR GATE.

scantling or stakes cut from the wood pile.

Many farmers have fields surrounded by wire fences. These fields are often crossed on foot, and many a step saved by avoiding the entrance gate; this is especially true in the winter time when the children are going to school. The wire fence is no respecter of clothes, and many a little girl is made sad by tearing her bright new gown while trying to get through one, and many a weary mother sighs as she takes up the rent trousers of the boy who was "getting over the fence and got caught." To save these tears, to save time, to save the strength of the fence, build a pair of steps as indicated by the illustration wherever a well-trodden path leads across (through) a wire fence.—Farm, Field and Fireside.

SPRAYING ORCHARDS.

Many Parasites Are Destroyed by the Use of Good Insecticides.

Spraying experiments that have been conducted for two years at the Missouri experiment station indicate that apple scab can be prevented by the use of Bordeaux mixture. Four applications were found more efficacious than three. In orchards sprayed in 1894 there was less scab than in the unsprayed ones. Bitter rot, while more destructive than usual, was less prevalent on trees sprayed with a six-pound solution of Bordeaux mixture. Attacks of codling moth were not prevented by the use of arsenites, the injury being due, the author thinks, to a second brood of the moth appearing after the use of arsenites had been discontinued. Bordeaux mixture was efficient in causing less loss from plum rot where the trees were sprayed weekly throughout the ripening period. At this time ammoniacal copper carbonate solution is recommended, as it does not leave a sediment that injures the appearance of the fruit. Paris green was used with success for repressing the curculio.

If Paris green is used for destroying the bag worm on evergreen trees, as soon as the eggs are hatched, at the rate of one pound to 300 gallons of water, the bag worm will be destroyed without injury to the trees. If the worms are two-thirds grown, double the strength of the insecticide will not kill the worms. Strong solutions of arsenites cannot be used on evergreens until the wood is ripe and the weather dry.

How Plants Acquire Food.

The director of the New Jersey experiment station says: The legumes, a class of plants which includes the various clovers, peas, beans, vetches, etc., differ from other plants in being able, under proper conditions, to acquire their nitrogen from the air, and can, therefore, make perfect growth without depending upon soil nitrogen. On the other hand, the various grasses and grains are not only dependent upon soil nitrogen, but they must have an abundance during their most rapid period of growth in order to attain their maximum development. For the latter class of plants favorable results are secured from the proper use of nitrogenous manures, while for the former class the application of nitrogenous manures simply results in supplying an element which could have been secured quite as well by the plant itself, without expense.

SIGHTS IN ARMENIA.

The Kurdish Residents and Their Big Dogs.

The paramount impression remaining on one's mind after having traveled in Armenia is that if you were to go over the same ground again to-morrow there would always be the charm of the unexpected to which to look forward. I am speaking of the time before the country was devastated by the Kurds. When an Englishman appeared upon the scene everyone—Turks, Kurds, Armenians, devil worshippers and so on—got ready to help him. I never saw such willingness to guide and direct a stranger in my life. But it seldom took a more practical form. Having done everything (in theory) that was necessary, the Turk or Kurd or devil worshiper went back to his hut and considered it done in fact.

And there remains in my mind to this day the sense of deep injury and vivid annoyance which I used to experience when, toward the end of a long ride, weary, travel-sore and hungry, I would pull up my apology for a mule and ask some stalwart mountaineer how far it was to the village where I intended to pass the night. He would blandly assure me that it was only an hour's journey and depart. At the end of an hour there would not be what I once heard an exasperated missionary describe as "a scintilla of a village in sight." Then I would meet another man. "Oh, yes, Effendi, you'll get there in three-quarters of an hour." The tired dogs and horses and mules would prick their ears and start on again, as if they, too, had heard the welcome words. Three-quarters of an hour later a downcast assemblage of men and animals would gaze over the plain in the fast-falling dusk, vainly looking for a village.

After this had been repeated some half a dozen times, however, just as we were sorrowfully gathering up our reins in our chilled fingers, preparing to push on with bitter hearts and empty bellies, 20 or 30 rough-haired, ferocious Kurd dogs would emerge from the gloom, circle around us and bite at our riding boots by way of welcome. These dogs belonged to the Kurds who had settled in villages and were enormous brutes. They usually wore huge collars, studded with nails, so that if a wolf flew at their throats he was received by a mouthful of sharp points and could not get a grip.

I once bought a magnificent Kurd dog for four shillings. He was so fierce that I dared not go near him. Kindness, I thought, would have its due effect on him in a few days, so I had a rope fastened to his collar and gave the other end of the rope to a mounted Zaptieh. The last thing I saw of the dog was a frightened horse and Zaptieh disappearing in the distance, and the animal fetching a compass for his native village with what Artemus Ward once described as "a select assortment of trouser patterns" in his mouth.

These dogs are so intelligent that they seem to understand the slightest sign from their masters. I once saw my man buy a fowl for our evening meal from a Kurd and pay down the money. Then he asked for the fowl. "Oh, there it is, Effendi," said the Kurd, pointing to a limp mass of feathers standing on one leg just outside the hut, "all you have to do is to catch and kill it." My man, like Agag, "walked delicately" toward the fowl, and the limp bundle of feathers immediately "put out" in the direction of Sivas. My man went after it, sword in hand, with the fell intention of slicing off the fowl's head and bringing back its gory body in triumph. A big Kurd dog immediately started after my man, who gained rapidly upon the fowl. Just as he was about to slice off its head an ominous growl from the rear warned him that he must turn and defend himself. The fowl stopped, limply watched the struggle and gained her second wind. When the exasperated man had driven off the dog he again pursued the fowl, which seemed to remember an important engagement in the direction of Diarbekir. Again the fowl was nearly overtaken; again came an ominous growl, the gleam of magnificent teeth through the gloom, and again the fowl limply presided as umpire while the combat raged. When the dog was driven away the fowl started off in the direction of Samsoun and my man returned to the hut with a piteous request for sticking plaster. I made my supper that evening off the aged and moldy heel of a Dutch cheese.—London Chronicle.

A Wonderful Waterspout.

On the night of the 25th of November last a waterspout burst over the city of Povoacao, on the island of Saint Michael, one of the Azores, and according to the report accompanying a petition for aid, which has been sent abroad, almost in an instant the deluge of water rose above the roofs of the low houses. The homes of thousands were destroyed, a great loss of life occurred, and on its way to the sea the water plowed a broad, deep channel nine miles long.—Youth's Companion.

Worms in Oranges.

No one is surprised to find a worm in an apple, and occasionally in other fruits, but it is a surprise to learn that the orange is getting to be infested as well as the rest. The worm in the orange is named by the entomologist *trypteta ludens*. So far as has been discovered it has not been found in any of the oranges grown in the different parts of the United States, although it is said it is getting common in the fruit grown beyond our Mexican borders.—Chicago Tribune.

A Valuable Book.

"This book on swimming is very useful in sudden emergencies." "Is it?" "I should say so. If you are drowning, turn to page 103, and there you'll see how to save yourself."—Tit-Bits.

—Shakespeare's longest play is "Hamlet"; it contains 4,058 lines; the shortest is the "Comedy of Errors," with 1,607 lines.

TRIUMPH OF JUSTICE.

It Overtook This Kansas Baggage Smasher at Last.

Station Agent Cotton, of the Missouri Pacific at Ottawa, has probably been thoroughly cured of the habit of tossing trunks around as though he had a grudge against their owners. For several weeks Mr. Cotton's wife had been visiting with her mother in Missouri. She came home the other day without announcing her coming, says the Kansas City Journal, and when her husband was jerking baggage out of the car door onto a depot truck he had no suspicion that any of it belonged to his family.

"Here is a heavy one," said the baggage man, as he trundled a big trunk to the door.

"I should say so," responded Cotton, as he tugged at the trunk and edged it along where it would slide down on the truck. "Durn the cuss, anyway, who tries to put a freight car load into one piece of baggage!" with which he viciously toppled the trunk over and let it fall with a smash on the platform.

That night the first thing his wife said to him after her kiss of welcome was: "Now, Tom, make the drayman handle my trunk awful careful, for it is filled with fruit jars, which mamma put up for us."

The next morning despair had its abiding place in the Cotton family, for it was discovered that the trunk which Tom had smashed belonged to his wife, and no less than 42 fruit jars had been broken and their contents spilled, while Mrs. Cotton's blue silk waist, which she had taken along to make the Missouri girls feel envious, was nothing less than a sight to behold.

Specially Remember

That the Cleveland, Akron & Columbus R'y. is still selling round trip tickets between all stations on its line, good going and returning Sunday, at a rate of one fare for the round trip. Ask any agent for particulars, or write to C. F. Daly, General Passenger Agent, Cleveland, O.

Often when people tell you how they told somebody else what they thought of it is a lie.—Washington Democrat.

No man can become great unless the people exaggerate his best points.—Athenian Globe.

With cold neuralgia increases. With St. Jacobs Oil it decreases and is cured.

Don't give a tract where bread is needed most.—Ram's Horn.

Easy to have rheumatism. Just as easy to get rid of it with St. Jacobs Oil.

It takes a hot fire to purify gold.—Ram's Horn.

THE MARKETS.

CINCINNATI, March 4.	
LIVE STOCK—Cattle, common	2 25 @ 2 35
select butchers	3 75 @ 4 25
CALVES—Fair to good light	5 00 @ 5 75
HOGS—Common	3 00 @ 3 50
Mixed packers	3 00 @ 3 50
Light shippers	3 00 @ 3 50
SHEEP—Choice	3 00 @ 3 50
LAMBS—Good to choice	4 00 @ 4 50
FLOUR—Winter family	4 00 @ 4 50
GRAIN—Wheat—No 2 red	80 1/2 @ 81 1/2
No 3 red	78 1/2 @ 79 1/2
Corn—No 2 mixed	22 1/2 @ 23 1/2
Oats—No 2	10 1/2 @ 11 1/2
Rye—No 2	10 1/2 @ 11 1/2
HAY—Prime to choice	10 75 @ 11 25
PROVISIONS—Mess pork	9 25 @ 9 75
Lard—Prime steam	3 90 @ 3 95
BUTTER—Choice dairy	9 10 @ 9 15
Prime to choice creamery	9 10 @ 9 15
APPLES—Per bushel	1 25 @ 1 50
POTATOES—Per bushel	1 00 @ 1 10

NEW YORK.	
FLOUR—Winter patent	4 50 @ 4 65
GRAIN—Wheat—No 1 north	87 1/2 @ 88 1/2
No 2 red	85 1/2 @ 86 1/2
CORN—No 2 mixed	22 1/2 @ 23 1/2
OATS—Mixed	10 1/2 @ 11 1/2
POKE—New mess	8 50 @ 9 00
LARD—Western	4 80 @ 4 90

CHICAGO.	
FLOUR—Winter patents	4 70 @ 4 80
GRAIN—Wheat—No 2 red	87 1/2 @ 88 1/2
No 3 Chicago spring	85 1/2 @ 86 1/2
CORN—No 2	22 1/2 @ 23 1/2
OATS—No 2	10 1/2 @ 11 1/2
POKE—Mess	8 50 @ 9 00
LARD—Steam	4 00 @ 4 10

BALTIMORE.	
FLOUR—Family	4 25 @ 4 40
GRAIN—Wheat—No 2	80 1/2 @ 81 1/2
Corn—Mixed	22 1/2 @ 23 1/2
Oats—Mixed	10 1/2 @ 11 1/2
LARD—Refined	4 80 @ 4 90
POKE—Mess	8 50 @ 9 00
CATTLE—First quality	3 80 @ 4 20
HOGS—Western	1 00 @ 1 10

INDIANAPOLIS.	
GRAIN—Wheat—No 2	80 1/2 @ 81 1/2
Corn—No 2 mixed	22 1/2 @ 23 1/2
Oats—No 2 mixed	10 1/2 @ 11 1/2

LOUISVILLE.	
FLOUR—Winter patent	4 70 @ 4 80
GRAIN—Wheat—No 2 red	87 1/2 @ 88 1/2
Corn—Mixed	22 1/2 @ 23 1/2
Oats—Mixed	10 1/2 @ 11 1/2
POKE—Mess	8 50 @ 9 00
LARD—Steam	4 00 @ 4 10

A Wonderful Statement

From Mrs. McGillas to Mrs. Pinkham.

I think it my duty, dear Mrs. Pinkham, to tell you what your wonderful Compound has done for me.

I was dreadfully ill—the doctors said they could cure me but failed to do so.

I gave up in despair and took to my bed. I had dreadful pains in my heart, fainting spells, sparks before my eyes—and sometimes I would get so blind, I could not see for several minutes.

I could not stand very long without feeling sick and vomiting. I could not breathe a long breath without screaming, my heart pained so.

I also had female weakness, inflammation of ovaries, painful menstruation, displacement of the womb, itching of the external parts, and ulceration of the womb. I have had all these complaints.

The pains I had to stand were something dreadful. My husband told me to try a bottle of Lydia E. Pinkham's medicine, which I did, and after taking it for a while, was cured. No other kind of medicine for me as long as you make Compound. I hope every woman who suffers will take your Compound and be cured.—Mrs. J. S. MCGILLAS, 113 Kilburn avenue, Rockford, Ill.



A Magnificent Road.

It is a revelation to most people to know that such railway equipment exists south of the Ohio River as that of the Queen and Crescent Route. The block system; electric equipment, such as track signals, electric headlights, and crossing gongs; together with a perfectly lined, rock-ballasted roadbed, all provide for the swift and safe movement of passenger trains of the most luxurious pattern. The New Orleans and Florida Limited leaves Cincinnati over the Queen and Crescent Route daily, on schedules which each year are made a little shorter, through scenery which is unsurpassed. W. C. Rinearson, Gen'l Pass'r Agt., Cincinnati, O.

Every real nice old lady should have her picture taken with her Bible in her hands. It gives the people an added respect for the Bible.—Athenian Globe.

Over the Precipice

Hosts of invalids tumble to destruction simply because they will exercise no discretion in the matters of eating, drinking and the avoidance of exciting causes, and, above all, in the item of medication. They persist in dosing themselves in season and out of season with drastic and violent remedies, opiates and mineral poisons. The best, the safest, the pleasantest substitute for such hurtful no-remedies is Hostetter's Stomach Bitters, potent for malarial, rheumatic, dyspeptic, nervous and bilious complaints.

It is impossible to discourage the man, who has learned in whatsoever condition he finds himself, therewith to be content.—Ram's Horn.

The B. & O. S.W. Ry., commencing Sunday, January 24th, will inaugurate on trains No. 4 and 5, a through Pullman Buffet Sleeping Car line between Baltimore and Chicago, via Cincinnati and Indianapolis.

This will enable the patrons of the B. & O. S.W. Ry. to make the above named points without the inconvenience of changing cars.

For time of trains and further information call on agents B. & O. S.W. Ry.

There is one thing about a prayer meeting: It lets out at nine o'clock, while a dance keeps going until one or two o'clock in the morning.

Free Farm Labor Bureau.

In order to assist the thousands of unemployed men in Chicago, the Workingmen's Home, at 42 Custom House Place, has established a Free Labor Bureau, and is prepared to furnish men to farmers and others in all parts of the country without expense to either. Employers applying should state definitely as to the kind of work, wages to be paid, and if railway fare will be advanced. Address: Labor Bureau, Workingmen's Home, 42 Custom House Place, Chicago, Ill.

It is queer that when a fellow is late everything else goes wrong to detain him.—Washington Democrat.

Cold breeds a brood of aches and pains. St. Jacobs Oil destroys them.

Every failure carries a guide-book to success in its inside pocket.—Ram's Horn.

When bilious or costive eat a Cascaret, candy cathartic, cure guaranteed. 10c, 25c.

The man whose cause is wrong is sure to be the loser if he gains it.—Ram's Horn.

Icy pavements and bruises give aches and pains. St. Jacobs Oil gives cure, comfort.

The man who is envious of evil-doers will soon be an evil-doer himself.—Ram's Horn.

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